

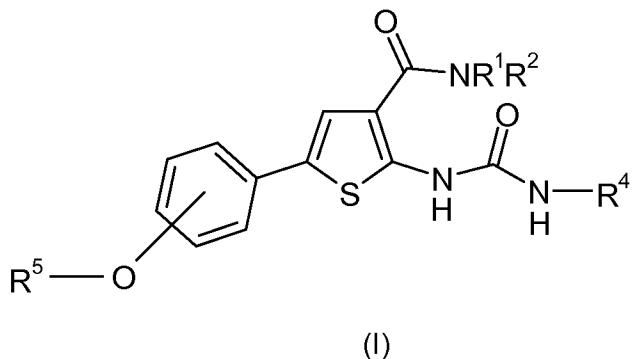
Application No. 10/568,380
Amendment Dated March 7, 2008
Reply to Office Action of September 10, 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or *in vivo*-hydrolysable precursors thereof:



wherein:

R¹ is an optionally substituted heterocyclyl; and

R² are at each occurrence independently selected from H, optionally substituted C₁₋₆alkyl, or optionally substituted heterocyclyl; with the proviso that R⁴ and R² are not both H; or R⁴ and R² and the N to which they are attached in combination form an optionally substituted heterocyclyl;

R⁴ is selected from H, OH, optionally substituted carbocyclyl, optionally substituted heterocyclyl, or optionally substituted C₁₋₆alkyl;

R⁵ is selected from H, optionally substituted carbocyclyl, or optionally substituted C₁₋₆alkyl.

2. (Canceled)

3. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R², R⁴, and R⁵ have any of the meanings defined in claim 1 and R¹ is an optionally substituted heterocyclyl wherein 1,2, or 3 substitutents substituents is/are independently selected from halogen, nitro, amino, cyano, trifluoromethyl, alkyl, alkenyl, alkynyl, haloalkyl, alkoxy, hydroxy, alkylhydroxy, carbonyl, -CH(OH)CH₃, -CH₂NH-alkyl-OH, alkyl-(OH)CH₃, -CH₂-phenyl-(OCH₃)₂, -Oalkyl, -OCH₃,

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-O-phenyl, -OCOalkyl, -NHCHO, -N-alkyl, -N-(alkyl)-CHO, -NH-CO-amino, -N-(alkyl)-CO-amino, -NH-COalkyl, -N-(alkyl)-COalkyl, -carboxy, -amidino, -CO-amino, -CO-alkyl, -CO₂alkyl, mercapto, -Salkyl, -SCH₂furanyl, -SO(alkyl), -SO₂(alkyl), -SO₂-amino, -alkylsulfonyl amino, phenyl, anisole, dimethoxyphenyl, trimethoxyphenyl, halophenyl, cycloalkyl, heterocycl, -alkyl-NH-cycloalkyl, -alkyl-NH- heterocycl, -alkyl-NH-alkyl-OH, -C(=O)OC(CH₃)₃, -N(CH₃)₂, -N(CH₂CH₃)₂, -alkyl-NH- alkyl- heterocycl, -alkyl-aryl, -methyl-phenyl, alkyl-polycycl, alkyl-amino, alkyl-hydroxy, -CH₂NH-alkyl-heterocycl, -CH₂NHCH₂CH(CH₃)₂, vicinal -O(alkyl)O-, vicinal -OC(haloalkyl)O-, vicinal -CH₂O(alkyl)O-, vicinal -S(alkyl)S- and -O(alkyl)S-.

4. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R², R⁴, and R⁵ have any of the meanings defined in claim 1 and R¹ is an optionally substituted heterocycl wherein 1,2, or 3 ~~substitutents~~ substituents is/are independently selected from: -OH, C(=O)OC(CH₃)₃, NH₂, C₁₋₆alkyl, methoxybenzene, or dimethoxy benzene.

5. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R², R⁴, and R⁵ have any of the meanings defined in claim 1 and

R¹ is a heterocycl wherein heterocycl is selected from piperdanyl, pyridinyl, pyrrolidinyl, pyrazinyl, azepanyl, azetidinyl, azabicycloziny, furanyl, thieryl.

6. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R¹, R⁴, and R⁵ have any of the meanings defined in claim 1 and

R² is H.

7. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R¹, R², and R⁵ have any of the meanings defined in claim 1 and

R⁴ is H.

8. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R¹, R², and R⁴ have any of the meanings defined in claim 1 and

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R^5 is H or an optionally substituted C_{1-6} alkyl.

9. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R^1 , R^2 , and R^4 have any of the meanings defined in claim 1 and

R^5 is H or an optionally substituted C_{1-6} alkyl wherein 1,2 or 3 ~~substitutents~~ substituents is/are independently selected from: NH_2 , $NHCH_3$, $N(CH_2CH_3)_2$, $N(CH_3)_2$, OCH_3 , OH , $-C_{1-6}$ alkyl, morpholino, piperidinyl, pyrrolodinyl.

10. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R^1 , R^2 , and R^4 have any of the meanings defined in claim 1 and

R^5 is H or an optionally substituted C_{1-3} alkyl.

11. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R^1 , R^2 , and R^4 have any of the meanings defined in claim 1 and

R^5 is H or an optionally substituted C_{1-3} alkyl wherein 1,2 or 3 ~~substitutents~~ substituents is/are independently selected from: NH_2 , $NHCH_3$, $N(CH_2CH_3)_2$, $N(CH_3)_2$, OCH_3 , OH , $-C_{1-6}$ alkyl, morpholino, piperidinyl, pyrrolodinyl.

12. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof, as recited in claim 1 wherein:

~~R^4 is an optionally substituted heterocyclyl;~~

R^2 is H;

R^4 is H;

R^5 is H or an optionally substituted C_{1-6} alkyl.

13. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof, as recited in claim 1 wherein:

R^1 is an optionally substituted heterocyclyl wherein the ~~substituent~~ substituent is selected from one or more of the following: $-NH_2$, C_{1-6} alkyl, $-C(=O)OC(CH_3)_3$,

R^2 is H;

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R⁴ is H;

R⁵ is H or an optionally substituted C₁₋₆alkyl wherein the substituent substituent is selected from one or more of the following: -C₁₋₆alkyl, -N(C₁₋₃alkyl)₂.

14. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof, as recited in claim 1 wherein:

R¹ is an optionally substituted heterocyclyl wherein the substituent substituent is selected from one or more of the following: -NH₂, C₁₋₆alkyl, -C(=O)OC(CH₃)₃,

R² is H;

R⁴ is H;

R⁵ is H or an optionally substituted C₁₋₃alkyl wherein 1,2 or 3 substitutents substituents is/are independently selected from: NH₂, NHCH₃, N(CH₂CH₃)₂, N(CH₃)₂, OCH₃, OH, -C₁₋₆alkyl, morpholino, piperidinyl, pyrrolodinyl.

15. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof, as recited in claim 1 wherein:

R¹ is a heterocyclyl;

R² is H;

R⁴ is H;

R⁵ is H or a C₁₋₆alkyl.

16. (Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt or an *in vivo*-hydrolysable precursor thereof, as recited in claim 1 wherein:

R¹ is a 6-membered heterocyclyl containing at least one N in the ring;

R² is H;

R⁴ is H;

R⁵ is a C₁₋₃alkyl.

17. (Withdrawn and Currently Amended) A compound of formula (I) or a pharmaceutically-acceptable salt thereof, as recited in claim 1 selected from:
tert-butyl 3-{[(2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;
2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-3-ylthiophene-3-carboxamide;

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2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-3-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3S)-piperidin-3-yl]thiophene-3-carboxamide; tert-butyl 3-{{[2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-3-thienyl]carbonyl}amino}piperidine-1-carboxylate;
2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-4-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-N-[(3R)-azepan-3-yl]-5-(4-methoxyphenyl)thiophene-3-carboxamide; N-(3-[(4-aminopiperidin-1-yl)carbonyl]-5-{4-[2-(diethylamino)ethoxy]phenyl}-2-thienyl)urea;
~~2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-[3-(hydroxymethyl)phenyl]thiophene-3-carboxamide;~~
2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-4-ylthiophene-3-carboxamide;
~~2-[(aminocarbonyl)amino]-N-(2-aminoethyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;~~
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-piperidin-4-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-N-pyridin-3-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(1-methylpiperidin-4-yl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3S)-1-methylazepan-3-yl]thiophene-3-carboxamide;
~~2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-N-[3-(hydroxymethyl)phenyl]thiophene-3-carboxamide;~~
2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-pyrrolidin-3-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-pyridin-3-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3S)-1-methylpiperidin-3-yl]thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-N-pyrrolidin-3-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3R)-piperidin-3-ylmethyl]thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3S)-pyrrolidin-3-yl]thiophene-3-carboxamide;

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2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3R)-pyrrolidin-3-yl]thiophene-3-carboxamide;
~~2-[(aminocarbonyl)amino]-N-[2-(dimethylamino)ethyl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;~~
~~2-[(aminocarbonyl)amino]-N-[2-(diethylamino)ethyl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;~~
2-[(aminocarbonyl)amino]-N-[(3S)-azepan-3-yl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3R)-piperidin-3-yl]thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(piperidin-4-ylmethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-pyrrolidin-3-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-N-(1-ethylpiperidin-3-yl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-N-[(3S)-1-ethylazepan-3-yl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(3-hydroxyphenyl)-N-piperidin-4-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-hydroxyphenyl)-N-piperidin-4-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(3-methoxyphenyl)-N-piperidin-4-ylthiophene-3-carboxamide;
tert-butyl (3S)-3-({[2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-3-thienyl]carbonyl}amino)pyrrolidine-1-carboxylate;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-piperidin-3-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-N-(1-benzylpiperidin-4-yl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;
tert-butyl 3-({[2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-3-thienyl]carbonyl}amino)piperidine-1-carboxylate;
2-[(aminocarbonyl)amino]-5-[4-(2-piperidin-1-ylethoxy)phenyl]-N-(2-pyridin-4-ylethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-[4-(2-piperidin-1-ylethoxy)phenyl]-N-(2-pyridin-4-ylethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-N-azetidin-3-yl-5-(4-methoxyphenyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(2S)-pyrrolidin-2-ylmethyl]thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-pyridin-4-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-piperazin-1-ylethyl)thiophene-3-carboxamide;

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2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-piperidin-1-ylethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-N-1-azabicyclo[2.2.2]oct-3-yl-5-(4-methoxyphenyl)thiophene-3-carboxamide;
~~2-[(aminocarbonyl)amino]-N-(2-hydroxyethyl)-5-(4-hydroxyphenyl)thiophene-3-carboxamide;~~
~~2-[(aminocarbonyl)amino]-N-(trans-4-hydroxycyclohexyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;~~
2-[(aminocarbonyl)amino]-5-(4-hydroxyphenyl)-N-(2-pyridin-4-ylethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-piperazin-1-ylethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-pyridin-4-ylethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-hydroxyphenyl)-N-(2-pyridin-3-ylethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-pyridin-3-ylethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2,2,6,6-tetramethylpiperidin-4-yl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(2-methoxyphenyl)-N-piperidin-4-ylthiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(tetrahydrofuran-2-ylmethyl)thiophene-3-carboxamide;
tert-butyl (3R)-3-({[2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-3-thienyl]carbonyl}amino)piperidine-1-carboxylate;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(pyridin-3-ylmethyl)thiophene-3-carboxamide;
tert-butyl 3-({[2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-3-thienyl]carbonyl}amino)azetidine-1-carboxylate;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(pyridin-4-ylmethyl)thiophene-3-carboxamide;
~~2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(3-methoxypropyl)thiophene-3-carboxamide;~~
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[2-(2-thienyl)ethyl]thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-thienylmethyl)thiophene-3-carboxamide;
N-[3-(1,4-diazepan-1-ylcarbonyl)-5-(4-methoxyphenyl)-2-thienyl]urea;
~~2-[(aminocarbonyl)amino]-N-(2-methoxyethyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;~~
2-[(aminocarbonyl)amino]-5-(4-hydroxyphenyl)-N-(2-thienylmethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-N-{2-[(2-furylmethyl)thio]ethyl}-5-(4-methoxyphenyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-hydroxyphenyl)-N-[2-(2-thienyl)ethyl]thiophene-3-carboxamide;
N-(3-[(4-aminopiperidin-1-yl)carbonyl]-5-{3-[2-(diethylamino)ethoxy]phenyl}-2-thienyl)urea;

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2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3R)-piperidin-3-ylmethyl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(1,2,3,4-tetrahydroquinolin-3-yl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-N-(1,3-benzodioxol-5-ylmethyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;

~~2-[(aminocarbonyl)amino]-N-(3-methoxybenzyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;~~

~~2-[(aminocarbonyl)amino]-N-[2-(3,4-dimethoxyphenyl)ethyl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;~~

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(5-methyl-2-furyl)methyl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(pyridin-2-ylmethyl)thiophene-3-carboxamide;

~~2-[(aminocarbonyl)amino]-N-(4-fluorobenzyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;~~

tert-butyl 4-({[2-[(aminocarbonyl)amino]-5-(3-methoxyphenyl)-3-thienyl]carbonyl}amino)piperidine-1-carboxylate;

~~2-[(aminocarbonyl)amino]-N-(2-methoxybenzyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;~~

~~2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-phenoxyethyl)thiophene-3-carboxamide;~~

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-pyridin-2-ylethyl)thiophene-3-carboxamide;
tert-butyl 4-({[2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-3-thienyl]carbonyl}amino)piperidine-1-carboxylate;

~~2-[(aminocarbonyl)amino]-N-(4-methoxybenzyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;~~

2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-[(3S)-piperidin-3-yl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-[(3R)-piperidin-3-yl]thiophene-3-carboxamide;

tert-butyl (3S)-3-{[(2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-3-thienyl)carbonyl]amino)piperidine-1-carboxylate;

2-[(aminocarbonyl)amino]-N-[(3S)-azepan-3-yl]-5-{4-[2-(diethylamino)ethoxy]phenyl}thiophene-3-carboxamide;

tert-butyl (3R)-3-{[(2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-3-thienyl)carbonyl]amino)piperidine-1-carboxylate;

N-[3-[(3S)-3-aminoazepan-1-yl]carbonyl]-5-(4-methoxyphenyl)-2-thienyl]urea;

5-{4-[2-(diethylamino)ethoxy]phenyl}-2-{{(pyrazin-2-ylamino)carbonyl}amino}-N-[(3S)-pyrrolidin-3-yl]thiophene-3-carboxamide;

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5-{3-[2-(diethylamino)ethoxy]phenyl}-2-{{(pyrazin-2-ylamino)carbonyl]amino}-N-[(3S)-pyrrolidin-3-yl]thiophene-3-carboxamide;
5-{3-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-4-yl-2-{{(pyrazin-2-ylamino)carbonyl]amino}thiophene-3-carboxamide;
N-[(3S)-azepan-3-yl]-5-(4-methoxyphenyl)-2-{{(pyrazin-2-ylamino)carbonyl]amino}thiophene-3-carboxamide;
5-{3-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-3-yl-2-{{(pyrazin-2-ylamino)carbonyl]amino}thiophene-3-carboxamide;
N-(2-aminoethyl)-5-(4-methoxyphenyl)-2-{{(pyrazin-2-ylamino)carbonyl]amino}thiophene-3-carboxamide;
5-{4-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-3-yl-2-{{(pyrazin-2-ylamino)carbonyl]amino}thiophene-3-carboxamide;
5-(4-methoxyphenyl)-N-piperidin-4-yl-2-{{(pyrazin-2-ylamino)carbonyl]amino}thiophene-3-carboxamide;
tert-butyl 3-{{(5-{3-[2-(diethylamino)ethoxy]phenyl}-2-{{(pyrazin-2-ylamino)carbonyl]amino}-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;
5-{4-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-4-yl-2-{{(pyrazin-2-ylamino)carbonyl]amino}thiophene-3-carboxamide;
5-(4-methoxyphenyl)-2-{{(pyrazin-2-ylamino)carbonyl]amino}-N-[(3S)-pyrrolidin-3-yl]thiophene-3-carboxamide;
N-[3-(1,4-diazepan-1-ylcarbonyl)-5-(4-methoxyphenyl)-2-thienyl]-N'-pyrazin-2-ylurea;
N-[3-[(3-aminopyrrolidin-1-yl)carbonyl]-5-(4-methoxyphenyl)-2-thienyl]-N'-pyrazin-2-ylurea;
tert-butyl 4-{{(5-(4-methoxyphenyl)-2-{{(pyrazin-2-ylamino)carbonyl]amino}-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;
tert-butyl 3-{{(5-{4-[2-(diethylamino)ethoxy]phenyl}-2-{{(pyrazin-2-ylamino)carbonyl]amino}-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;
5-[4-(2-diethylamino-ethoxy)-phenyl]-2-(3-hydroxy-urea)-thiophene-3-carboxylic acid-(S)-piperidin-3-ylamide;
2-[(aminocarbonyl)amino]-N-[(3S)-azepan-3-yl]-5-(3-methoxyphenyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(2-hydroxyphenyl)-N-[(3S)-piperidin-3-yl]thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(3-methoxyphenyl)-N-[(3S)-piperidin-3-yl]thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-[2-(benzyloxy)phenyl]-N-[(3S)-piperidin-3-yl]thiophene-3-carboxamide.

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18. (Canceled)

19. (Canceled)

20. (Withdrawn) A method for the treatment of cancer comprising administering to a human a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in claim 1.

21. (Withdrawn) A method for the treatment of breast cancer, colorectal cancer, ovarian cancer, lung (non small cell) cancer, malignant brain tumors, sarcomas, melanoma and lymphoma by administering a compound of formula I or a pharmaceutically acceptable salt thereof as defined in claim 1.

22. (Withdrawn) A method of treating cancer by administering to a human a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in claim 1 and an anti-tumor agent.

23. (Withdrawn) A method of treating cancer by administering to a human a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in claim 1 and a DNA damaging agent.

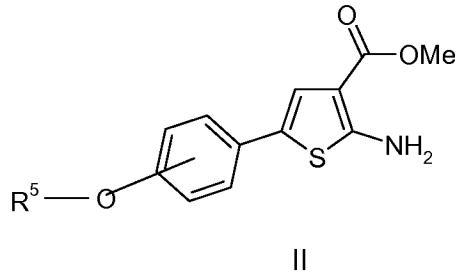
24. (Withdrawn) A method for the treatment of infections associated with cancer comprising administering to a host in need of such treatment a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in claim 1.

25. (Withdrawn) A method for the prophylaxis treatment of infections associated with cancer comprising administering to a host in need of such treatment a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in claim 1.

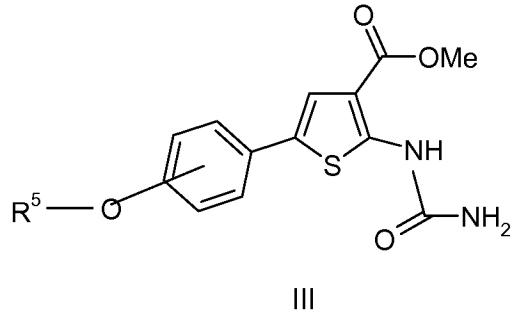
26. (Withdrawn and Currently Amended) A pharmaceutical composition comprising a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in claim 1 together with at least one pharmaceutically acceptable carrier, diluent or excipient.

27. (Withdrawn) A process for the preparation of a compound of formula (I) or a pharmaceutically acceptable salt or *in vivo*-hydrolysable precursors thereof as defined in claim 1, which comprises:

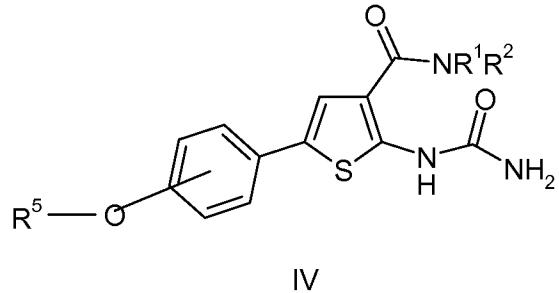
(a) the reaction of a 2-aminothiophene shown below as Formula II



wherein the hydrogen at the 2-amino position is displaced to form an amide, shown as formula III below



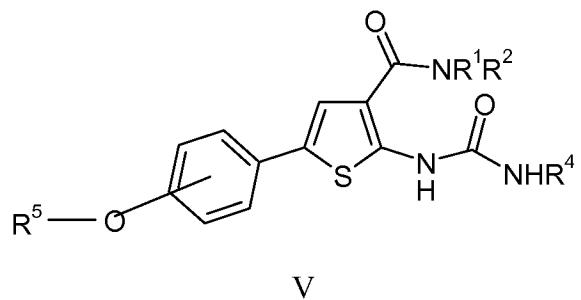
wherein the methyl ester is converted to an amide utilizing the desired amine in conjunction with an aluminate organometallic complex, to give the product shown as formula IV below:



Wherein the amide is converted to various substituted secondary ureas by the reaction with various isocyanantes to yield the product shown as fromula V below:

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Reply to Office Action of

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March 7, 2008
September 10, 2007



28. (Canceled)